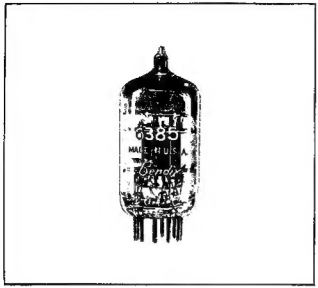
6385

Bendix Red Bank Type TE-21
(Generic Type 5670)

DOUBLE TRIODE



RATINGS*

Heater voltage—(AC or DC)**	6.3 volts
Heater current	0.50 amps.
Plate voltage—(max.)	300 volts
Max. peak plate current (per plate)	25 ma.
Max. plate dissipation (per plate)	1.5 watts
Max. peak grid voltage	+0 volts —100 volts
Max. heater-cathode voltage	300 volts
Max. grid resistance	1.0 megohm
Warm-up time	45 sec.

(Plate and heater voltage may be applied simultaneously)

* To obtain greatest life expectancy from tube, avoid designs where the tube is subject to all maximum ratings simultaneously.

** Voltage should not fluctuate more than ± 5%.

PHYSICAL CHARACTERISTICS

Base	Miniature button 9-pin
Bulb	T-6½
Max. overall length	2⅝ in.
Max. seated height	1 15/64 in.
Max. diameter	⅞ in.
Mounting position	Any
Max. bulb temp.	160°C

DESCRIPTION

This miniature nine-pin double triode is one of the Bendix Red Bank line of reliable vacuum tubes specifically designed for aircraft and industrial applications where freedom from early failure, long average service life, and uniform operating characteristics are extremely important. It is intended to replace the 2C51 or the 5670 in applications where reliability is the primary consideration. Each tube is given a 45-hour run-in under various overload, vibration, and shock conditions likely to be encountered in service. This run-in serves to reduce early failures by eliminating tubes with any minor defects that might lead to failure under actual operating conditions.

The use of a coil type heater inside an extruded alumina insulator gives a long life heater structure which stands up well under high heater to cathode voltage. The mount structure is so designed that the tube is capable of withstanding severe shock and vibration.

The tube is intended for use as an amplifier—to increase or control alternating voltages or power; as a mixer—to change electrical energy at one frequency to electrical energy at another frequency; or as an oscillator—to generate an alternating voltage. It can also be used in control equipment as part of a multivibrator or clamp circuit. When used as an oscillator, the upper limit of its frequency range is approximately 500 mc.

AVERAGE ELECTRICAL CHARACTERISTICS

Heater voltage, E_f	6.3 volts
Heater current, I_f	0.50 amps.
Plate voltage, E_b	150 volts
Grid voltage, E_c	—2.0 volts
Plate current, I_b	8.0 ma.
Mutual conductance, g_m	5000 μmhos
Amplification factor, μ	35
Cut-off voltage	—10 volts
Direct interelectrode capacitances (no shield)	
Plate-grid (per section)	1.7 μμf
Plate-cathode (per section)	1.1 μμf
Grid-cathode (per section)	2.4 μμf
Plate-plate	0.1 μμf

RED BANK DIVISION
BENDIX AVIATION CORPORATION
EATONTOWN, NEW JERSEY

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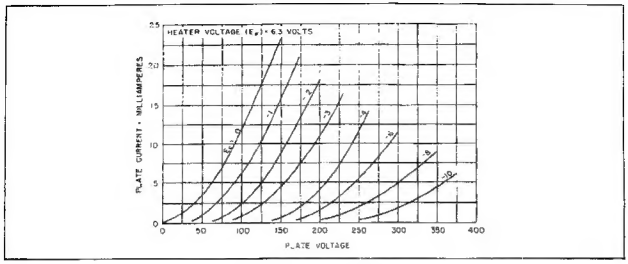
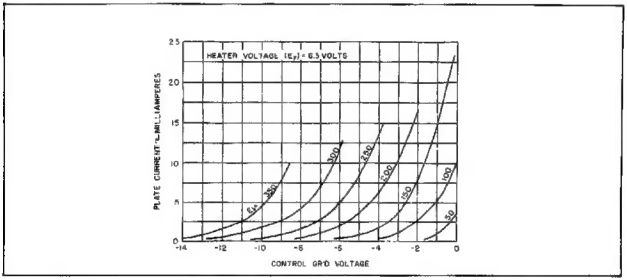
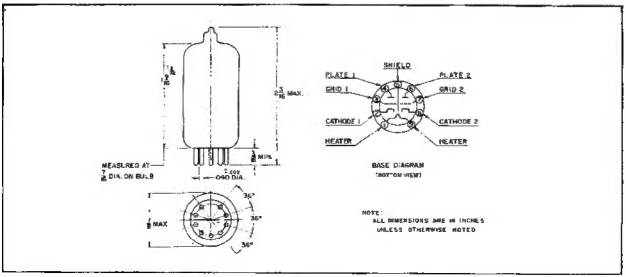


PLATE CHARACTERISTICS



TRANSFER CHARACTERISTICS



OUTLINE DRAWING